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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,538

08/07/2006

Reinhold Meier

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EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,538	<b>Applicant(s)</b> MEIER, REINHOLD	
	<b>Examiner</b> SANG Y. PAIK	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/13/06, 8/7/06</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 7 is objected to because of the following informalities: claim 7 depends on a canceled claim 1. For purposes of examining, claim 7 is treated as being dependent on claim 6 which is the only preceding claim to claim 7. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, there is no proper antecedent basis for "the auxiliary weld"

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Pratt et al (US 5,245,155).

Pratt shows the method claimed including the welding of gas turbine components with a laser powdered-up welding to join two gas turbine components together. Also see column 1, lines 10-15, and column

6. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Guo (US 2004/0191064).

Guo shows the method claimed including the welding of gas turbine components with a laser powdered-up welding.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt et al (US 5,245,155) or Guo (US 2004/0191064) in view of Boetcher et al (US 2,288,433) or Stone (US 2,662,277).

Pratt or Guo shows the method claimed except for joining the components together via an auxiliary weld prior to the welding.

Boetcher or Stone show that it is well known in the art to bring the welding components together and provide an initial welding to hold the components together before filler metals are introduced to complete the welding process.

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In view of Boetcher or Stone, it would have been obvious to one of ordinary skill in the art to adapt Pratt or Guo with an auxiliary weld to weld and hold the joining components prior to introducing the powdered-up welding to ensure a proper alignment of the adjoining parts of the components to allow a more secured powdered up welding process.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt or Guo in view of Boetcher or Stone as applied to claim 7 above, and further in view of Jones (US 4,224,499) or Mega et al (US 2004/0169022).

Pratt or Guo in view of Boetcher or Stone shows the method claimed except for an auxiliary weld that is produced by laser welding or electron-beam welding.

Jones or Mega shows that it is well known in the art that an laser welding is used for butt welding two adjoining elements, and it would have been obvious to one of ordinary skill in the art to adapt Pratt or Guo, as modified by Boetcher or Stone, with an auxiliary welding performed by laser or electron beam welding since such welding is well known in the art that can alternatively to provide an effective welding means to join two adjoining components.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt et al (US 5,245,155) or Guo (US 2004/0191064) in view of Baumann (US 2,492,833) or Lysholm (US 2,200,287).

Pratt or Guo shows the method claimed except for the components comprise at least two rotor discs with an axially extending flange.

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Baumann or Lysholm shows gas turbines having rotor discs with axially extending flanges that are welded together.

In view of Baumann or Lysholm, it would have been obvious to one of ordinary skill in the art to adapt Pratt or Guo with the rotor discs having an axially extending flange as such rotor discs are well known in the gas turbines which allow for alternatively secured attachment to each other.

10. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt or Guo in view of Boetcher or Stone as applied to claim 7 above, and further in view of Baumann (US 2,492,833) or Lysholm (US 2,200,287).

Pratt or Guo in view of Boetcher or Stone shows the method claimed except or the components comprise at least two rotor discs with an axially extending flange that are welded together.

Baumann or Lysholm shows gas turbines having rotor discs with axially extending flanges that are welded together, and as applied to claim 7, Boetcher or Stone show that it is well known in the art to bring the welding components together and provide an initial welding to hold the components together before filler metals are introduced to complete the welding process.

In view of Baumann or Lysholm, it would have been obvious to one of ordinary skill in the art to adapt Pratt or Guo with the rotor discs having an axially extending flanges as such rotor discs are well known in the gas turbines and provide an auxiliary weld as taught by Boetcher or Stone to hold and weld the extending flanges along the intersection wherein a pool crater, a space between the flanges of the rotor discs, is

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created and formed for the powder build up welding to allow a more secured weld joints between the rotor discs.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG Y. PAIK whose telephone number is (571) 272-4783. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANG Y PAIK/  
Primary Examiner, Art Unit 3742